

**Notice of Allowability**

Application No.

09/807,963

Applicant(s)

UENOHARA ET AL.

Examiner

Olabode Akintola

Art Unit

3691

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication filed on November 30, 2007.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eckhard H. Kuesters on 01/02/08.

18. (Currently amended) A ~~recording medium storing a program for controlling a computer, the program comprising the steps of~~ computer readable medium storing program instructions which, when executed by a computer, results in the performance of the steps comprising:

inputting at least one of initial values of a price, a price change rate, and a price change direction for a financial product or its derivatives;

setting a sampling width;

inputting at least necessitated one of probability-distributions of a price, a price change rate and a price change direction;

inputting a random number;

repeating to simulate a price immediately after the sampling width, a price change rate immediately after the sampling width or a price change direction immediately after the sampling

width from a price immediately before the sampling width, a price change rate immediately before the sampling width or a price change direction immediately before the sampling width based on a Boltzmann model using a Monte Carlo method within the range of the evaluation condition; and

integrating prices immediately after the sampling width, price change rates immediately after the sampling width or price change directions immediately after the sampling width to obtain a probability density.

***Allowable Subject Matter***

Claims 1-18 are allowed.

***Examiner's Statement of Reason for allowance***

The following is a statement of reasons for the indication of allowable subject matter:

The most relevant references are the *Pilipovic* and *Anile* references.

*Pilipovic* discloses a system ( and corresponding computer readable medium storing executable program instructions) for evaluating a price distribution or a risk distribution for a financial product or its derivatives, comprising: an initial value setter configured to input at least one of initial values of a price, a price change rate, and a price change direction for a financial product

or its derivatives; an evaluation condition setter configured to input evaluation conditions including at least time steps and a number of trials; an analyzer configured to repeat simulation of price fluctuation using a Monte Carlo method to obtain a price distribution or a risk distribution; a velocity/direction distribution setter configured to input probability distributions of the price, the price change rate, and the price change direction for the financial product or its derivatives into the analyzer; a random number generator configured to provide a series of random numbers used in the analyzer; and an output unit configured to output analysis results of the analyzer (col. 2, lines 16-29; col. 20, lines 1-15; col. 4, lines 8-20; col. 3, lines 14-29; col. 2, lines 10-30; col. 2, lines 10-15; Figure 5).

*Anile* discloses solving Boltzmann equation using Monte Carlo distribution (pg 1 of 10, second paragraph).

*Pilipovic and Anile* fail to teach

wherein

the Boltzmann model analyzer includes a sampling unit, a price-fluctuation simulation unit, and a probability density calculation unit, and

the Boltzmann model analyzer, after receiving at least one of initial values of the price, the price change rate, and the price change direction for the financial product or its derivatives from the initial value setter, a sampling width from the sampling unit, at least necessitated one of probability-distributions of a price, a price change rate and a price change direction from the velocity/direction distribution setter, and the random number from the random number

generator, repeats by the price-fluctuation simulation unit to simulate a price immediately after the sampling width, a price change rate immediately after the sampling width or a price change direction immediately after the sampling width from a price immediately before the sampling width, a price change rate immediately before the sampling width or a price change direction immediately before the sampling width based on the Boltzmann model using the Monte Carlo method within the range of the evaluation condition set by the evaluation condition setter, and integrates prices immediately after the sampling width, price change rates immediately after the sampling width or price change directions immediately after the sampling width to obtain a probability density by the probability density calculation unit.

Updated searches revealed no references that disclosed the claimed invention, nor were any further references identified which could be reasonable combined with *Pilipovic and Anile*.

For this reason, claims 1 and 18 are deemed to be allowable over prior art of record and claims 2-17 are allowed by dependency.

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olabode Akintola whose telephone number is 571-272-3629.

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The examiner can normally be reached on M-F 8:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA 

  
HAN M. KAYAN  
PRIMARY EXAMINER